

Title (en)

Method and apparatus for forming headliners

Title (de)

Verfahren und Vorrichtung zum Formen von Dachverkleidungen

Title (fr)

Méthode et appareil pour la formation de garnitures de toit de voiture

Publication

**EP 1038649 B1 20050907 (EN)**

Application

**EP 00302374 A 20000323**

Priority

US 27605499 A 19990325

Abstract (en)

[origin: EP1038649A2] A method for forming a headliner assembly (10) includes forming a main body (12) having a periphery, and a shape corresponding to a desired shape of the headliner assembly (10); positioning the main body (12) in a mold (58) having a recess (68, 70, 72); closing the mold (58); and injecting foam into the recess (68, 70, 72) to simultaneously form an energy absorbing member (13, 14, 15) and join the energy absorbing member (13, 14, 15) to the main body (12) proximate the periphery of the main body (12). Apparatus (28) for carrying out the method includes a mold (58) having a recess (68, 70, 72) and injection means (74) for injecting foam into the recess (68, 70, 72). A headliner assembly (10) produced by the method includes a main body (12) having energy absorbing members (13, 14, 15) produced by injection molding foam onto the main body (12). <IMAGE> <IMAGE>

IPC 1-7

**B29C 45/16**; **B60R 13/02**; **B32B 5/18**

IPC 8 full level

**B60R 13/02** (2006.01); **B60R 21/04** (2006.01)

CPC (source: EP US)

**B60R 13/0225** (2013.01 - EP US); **B60R 21/04** (2013.01 - EP US); **B60R 2013/0287** (2013.01 - EP US); **B60R 2021/0442** (2013.01 - EP US)

Cited by

GB2387140A; GB2387140B; GB2414959A; GB2414959B; WO0242119A3; US7292910B2; US7309521B2; US6939491B2

Designated contracting state (EPC)

DE FR GB SE

DOCDB simple family (publication)

**EP 1038649 A2 20000927**; **EP 1038649 A3 20010711**; **EP 1038649 B1 20050907**; DE 60022419 D1 20051013; DE 60022419 T2 20060119; US 2001042935 A1 20011122; US 6451232 B2 20020917

DOCDB simple family (application)

**EP 00302374 A 20000323**; DE 60022419 T 20000323; US 27605499 A 19990325